

THE
BOSTON MEDICAL AND SURGICAL JOURNAL.

NEW SERIES.]

THURSDAY, AUGUST 4, 1870.

[VOL. VI.—No. 5.

Original Communications.

CASE OF POISONING BY WORM LOZENGES.

By BENJ. D. GIFFORD, A.M., M.D., Gloucester.

On Dec. 23d, 1869, I was called to a child, three years old, who, two hours previously, had eaten seven "worm lozenges," judged to contain santonin as the medicinal ingredient. I found her in clonic spasms of the left side; pupils widely dilated and uninfluenced by light; respiration, much impeded, eighteen per minute; a viscid, frothy mucus issuing from the mouth at each expiration. The spasms involved every muscle on the left side of the body. The face was twitched into frightful contortions, and pleurothotonos was developed every other second. Pulse fair, 160 per minute. No ability to speak or move. She had vomited freely before I saw her. I endeavored to produce emesis with ext. ipecac. fl. and by tickling the fauces with a feather, without avail. I then gave her chloroform gts. v. every fifteen minutes; also injections of diluted whiskey. In course of an hour the spasms began to yield and the pupils to respond to light; at the end of two hours she was perfectly quiet. I directed the chloroform to be continued should the spasms return, and left. An hour afterwards they did return, and I was again called. I found her worse than ever. Instead of the muscles of one side, both were involved in the spasmodic action. The pulse was so fast and fluttering that I could not count it. Respiration was very laborious, with mucous *râles* throughout both lungs. I continued the chloroform, with an addition of tinct. opii gts. v., every twenty minutes; also small injections of whiskey. At the end of an hour and a half the spasms entirely abated, and the patient slept from 8.30 to 11, P.M.; she then awoke conscious, drank some beef-tea, then slept till morning, when she was apparently as well as usual.

A similar case is reported in the *Annales de Thérapeutique* for 1852 (see U. S. Dis- VOL. VI.—No. 5

pensatory, eleventh edition, article Santonin), after what was considered an overdose of santonin, but which was afterwards proved to be strychnia. The symptoms were the same in my case, though instead of cold sweats the body was preternaturally hot and bathed in perspiration. I never suspected strychnia at the time, nor till I had seen the later edition of the Dispensatory. I then subjected one of the lozenges to analysis, by powdering it on a clean porcelain surface, drenching it with sulphuric acid and adding a small crystal of bichromate of potassa. After a few minutes the characteristic purple or violet color was produced, showing the presence of strychnia. The color was of precisely the same shade, though less distinct, as that produced by the same experiment with a specimen of Rosengarten & Sons' strychnia. Hence I conclude that the case was in reality one of an overdose of strychnia, and that the santonin played no part in producing the symptoms. I suppose the admixture of strychnia with santonin is purely fortuitous; but it behoves the manufacturers to carefully test their santonin before sending it out, for in this case it was far from being "positively safe."

PSEUDO-MENINGITIS.

Extracts from an Article by M. BOUCHUT in the *Union Médicale*. Translated by LUTHER PARKS, M.D., Boston.

Pseudo-Meningitis as a Prodroma of Acute Diseases (Tonsillitis, Pneumonia, Variola, Measles, Scarletina).

This form of the affection is very common, and often gives rise to grave errors of diagnosis. It is more frequent at the outset of angina tonsillaris than in the beginning of any other disease. It is met with only in children of a certain age—that of early infancy. I have never seen it in those older than seven years.

Pseudo-meningitis tonsillaris is the result of acute inflammation of the tonsils, and not of diphtheritic or other different phlegmasiae of these glands. It is the conse-

[WHOLE NO. 2218.

quence of a vaso-motor congestive hypotension of the meninges, inducing hyperemia of these membranes, and produced by irritation of the extremities of the great sympathetic and of the glosso-pharyngeal nerve. The action is immediate—instantaneous. It is the initial phenomenon of angina tonsillaris, just as among the prodromata of variola there appears, under the influence of reflex action, a *rash*, or preliminary exanthem, more or less immediately preceding the pustular eruption of the disease.

The children are seized with fever, with headache, and with congestion of the face, accompanied with increased heat in that part. The phenomena are analogous to those observed in all acute diseases of the adult: only in childhood, which is the period of violent bodily sympathies, the cerebral congestion is more marked; and, together with burning cheeks and the *facies vultuosa*, there is an indescribable agitation, constant movement, cries, delirium, fright, and hallucinations which greatly terrify the mothers. At the same time there is frequency of the pulse, which is sometimes irregular and intermittent, the vomiting of indigestion, now and then constipation; in a word, everything to deceive the medical attendant for the time, and lead his judgment astray. Mistakes of this kind are not [usually] of long duration, but they [may] last a day or two, and that is too long. The diagnosis should be formed from the first hour, in order that it may be followed by action, since so acute an affection cannot be met by expectant treatment; and the physician, under these circumstances, often thinks he has to deal with brain fever—that is to say, meningitis. He thus decides, and proceeds to treatment with leeches to the ears, to the anus or the ankle; and three days afterwards, the cerebral symptoms having subsided, he thinks he has cured meningitis. I know many of the profession who, in good faith, assume to have thus cured that disease, although it did not exist, pseudo-meningitis having been mistaken for it. On one occasion, indeed, twenty years ago, a physician, now deceased, was called to a two-year old patient of mine during my absence, and applied leeches to the ears, thinking that he was treating meningeal inflammation, when there was only a tonsillitis setting in. Nevertheless, I had declared the same morning that there was no cerebral inflammation. What happened? The leech-bites bled beyond all account, the haemorrhage could not be stopped, and the child died. Twenty times since then I have seen symp-

toms of the same kind; that is, acute cerebral disturbance, the sympathetic result of the same cause. I have been myself deceived, like many others, as I have mentioned in my clinical lectures and in the article entitled *Amygdalite* in my Treatise on Diseases of Children.

The sympathetic functional disturbance, which we call tonsillary pseudo-meningitis, attains its highest degree of intensity very rapidly; for, in a few hours all its symptoms are fully developed and do not then go on increasing. The tonsillitis once established, the congestive action in the head ceases, and the local lesion runs its course without other sympathetic symptom than the fever. This form of pseudo-meningitis lasts hardly forty-eight hours. The rapid cessation of the symptoms leads the physician to believe that he has mastered them; and if he have not discovered the angina, which is generally not very obvious in early infancy, he thinks himself to have triumphed over incipient meningitis. But, nature left to herself, or aided by a few revulsives to the limbs, would have done as well without his further interference. Never does tonsillary pseudo-meningitis go beyond the symptoms I have indicated, and it is not fatal.

Is the diagnosis very difficult? No! It is enough to be aware of the possibility of error to avoid it. In young children, indeed, acute tonsillitis is never accompanied by that dread of swallowing, or that dysphagia revealed by an act of painful deglutition, as in the adult; so that, if we wait till the child notifies us of his sore throat, or manifests it by extending his neck when he goes to swallow the saliva, we shall necessarily be deceived. The physician, therefore, who is called to a young child that has fever attended with agitation and delirium, should examine the fauces. He will, by so doing, often find there the point of departure of the febrile reaction; and if he is acquainted with the sympathetic and reflex relation of the nerves of the cervical region, he will not hesitate to attribute to the angina the production of the symptoms which may have disquieted him.

Under the head of *pseudo-meningitis as a prodrome of pneumonia*, Bouchut relates this anecdote. I was called by Dr. L. to see a child, which had vomiting, two days' constipation, very violent cephalgia, delirium and fever, with great agitation. The little patient had been purged, so that there were no means of ascertaining the sympathetic condition of the intestine. In brief, the physician said here is meningitis. The

child scarcely coughed and had no dyspnoea. Yet, wishing to make a thorough examination, I set to auscultating, and discovered fibrinous pneumonia at the summit of the right lung. This was the cause of the symptoms which simulated meningitis.

When, in adults, *pneumonia* or *variola* is ushered in by sympathetic phenomena, there is no similarity in the symptoms to meningitis; but the resemblance is to insanity. The symptoms sometimes constitute a veritable attack of acute, furious mania, with cries and violence; especially if the patients have been using alcoholic liquor to excess.

In *scarlatina* and *measles* the pseudo-meningitis disappears as the eruption comes out.

Selected Papers.

A MEDICO-LEGAL STUDY OF HANGING.

By AMBROISE TARDIEU, Professor of Legal Medicine in the Faculté de Médecine, Paris.

SCISSING furnishes almost all the examples of this mode of death. Suicide by hanging is most common in prisons, in insane asylums, and similar places, where circumstances prove that homicide could not have taken place.

Signs of Hanging.—These may be divided into the symptoms observed up to the time of death, and the condition of the body as observed after death.

The material for the first series of facts has been derived from experiments made upon animals, both by Dr. Faure and the author; from the statements of resuscitated persons; from the observations of Fleischman (of Erlangen), who experimented in hanging himself; and from the great collection of cases and drawings made by Dr. Jacquemin, chief physician to the prison Mazas.

At the moment when the body, suspended by the cord, is abandoned to its own weight, a great heat is felt in the head; tremendous noises, and as it were a deafening music, ring in the ears; flashes shoot before the eyes; the legs seem to have acquired an extraordinary weight, and then all sensation is lost. Sometimes consciousness is lost from the very first moment, owing to the occurrence of syncope; a number of resuscitated persons have stated this in the most positive manner, and the author believes it to be more frequently

the case than is generally supposed. For the popular opinion that a voluptuous sensation is felt during the first moments, the author finds no authority whatever. Certain persons, however, who have been resuscitated, have described the vague languor which precedes syncope, mistaking it for sexual sensation.

The second, or unconscious phase, is marked by convulsions of the face, and then of all the limbs, particularly the legs. This phenomenon was always present in the experiments made upon animals. In the "prison Cellulaire" several of the convicts attempted to suspend themselves from the upper part of the doors of their cells, but their involuntary convulsive kicks against these doors brought immediate succor (which they would rather have done without). The knowledge of this fact spread among the convicts, and those who wished to die undisturbed took the precaution, before hanging, of placing their mattresses so as to prevent their heels from kicking the door. This convulsive period is scarcely ever absent.

Apparent death ensues. It is during this period that relaxation of the sphincters occurs. But the latter occurrence is confined to *a few cases only*; in the very complete and scrupulous observations made by Jacquemin, the passage of a certain quantity of urine and feces is noted in but two out of forty-one cases.

Death generally comes soon. The author entirely discredits the theory of Ollivier, of Angers, that it comes sooner when the cord is placed above the larynx. The animals made the subject of experiment die in from twelve to twenty minutes, very seldom before that period (Faure). In man, there is every reason to think that death usually occurs sooner. A prisoner, named Meignant, at Mazas, hung himself from the bar of the *promenoir*; he had been taken thither at half-past ten, and at forty minutes past ten (the dates are very exact) the custodian of the court-yard found him hanging dead. In another case, a woman was resuscitated after hanging seven minutes. A. Taylor considers this possible, in general, after the lapse of five minutes. Fleischmann perceived the symptoms of stupor, noise in the ears, and sensation of weight, at the end of two minutes in one experiment, and of half a minute in another; but the application of the cord upon the trachea provoked them immediately. In most cases, and under ordinary conditions, we are entitled to infer that death takes place in about ten minutes. Ac-

counts of very prolonged resistance to death are mostly apocryphal. But, of all facts of this sort, the following, observed by Drs. Clark, Ellis and Shaw, of Boston, is the most curious (quoted from Parrot's *These de Concours*, 1860):—

"The criminal, aged 28, weighed 130 pounds, and was very vigorous. He was executed at 10, A.M. It is reported that there was not the least perceptible struggle or convulsion. This shows that death was not caused by rapid asphyxia, which is always accompanied by violent convulsions. The lungs and brain were found in a normal state. The primary cause of death, beyond a doubt, was syncope, due to emotion or to the cerebral excitement caused by the sudden fall through a distance of seven or eight feet. After hanging seven minutes, the heart was distinctly heard to beat 100 times in a minute. Two minutes later there were 98 beats; three minutes after that only 60, very weak; in two minutes more the sounds had disappeared. After hanging twenty-five minutes, the body was taken down; there was no cardiac bruit or impulse; the face was purple, though a small space near the ear (where the cord had exerted no pressure) might probably have given passage to the blood. The eyes and tongue were not prominent; the pupils were dilated. The cord had been attached just above the thyroid cartilage. In fifteen minutes more the cord was loosened; after which the body and face gradually became pale. The vertebral column had not been injured. No emission of semen had occurred, which corresponds with the absence of asphyxia and of spinal lesion. At 11.30 a regular movement of pulsation was perceived in the right subclavian vein. On applying the ear to the chest, it became clear that this was due to the heart; a regular and distinct beat, with light impulse, was observed 80 times per minute. The thorax was opened, and the heart exposed, without affecting the pulsatory movements. The right auricle was contracting and dilating with regularity and energy. At noon the pulsations were 40 per minute; at 1.45, only 5; the spontaneous movements ceased at 2.45, but the irritability did not disappear till 3.18, more than five hours after the execution. It is infinitely probable (says Parrot) that the sound heard before opening the chest depended solely upon movements of the auricle."

Effects of Hanging, after Resuscitation.—To elucidate this point, the author con-

butes the following histories, which will serve as types:—

CASE I.—A man hung himself; was discovered insensible, and was taken to the hospital St. Louis, where he remained unconscious for two days. On the third day he spoke with extreme difficulty, and in a scarcely audible voice. His memory was completely lost. Incontinence of urine and paralysis of the rectum; severe pains and persistent twitchings of the lower limbs. Respiration embarrassed; moist rales all over both sides of the chest. Catarrhal cough, thick expectoration and fever. A deep, parchment-like furrow upon the front of the neck.

CASE II.—A man hung himself among the scenes of a theatre. It is not known how long he remained hanging; but he lost consciousness directly, and remembered nothing until he came to himself in the vehicle which took him to the hospital. When found, he appeared quite dead. At the hospital, one hour after the attempt at suicide, he answered with precision and intelligence; his face was swollen, his lips purple, and he spat up some blood. While his head rests on the pillow he suffers nothing, and only feels a little numbness in the head and neck; but, when he tries to turn or raise his head, he feels violent pains; he cannot place himself in the sitting posture without very severe pains in the neck. Speech easy and natural. Deglutition extremely painful. The mark of the cord in front is on a level with the upper angle of the thyroid cartilage; behind, it is about two fingers' breadth above the spine of the vertebra prominens; it is two centimetres broad, is red, and in parts excoriated; on the right side it is more marked, and presents several violet marblings. No loss of semen during or after the act; no erection observed; no involuntary evacuation. Next day, better; no new symptom; but a certain numbness of the right side of the head, neck and shoulders remained for a week, to which succeeded a disagreeable sensation of cold, chiefly felt in the night. Sudden violent shoots of pain in the face from time to time. A deep, red line still remained on the right side of the neck after the lapse of two weeks.

Post-mortem Phenomena.—1. Position of the body. Suspension is often incomplete. Among 261 such cases, the author finds the feet recorded as resting on the ground, in 168; the body kneeling, in 42; the body extended and lying, in 29; sitting, in 19; squatting, in 3. Without seeing the drawings, it is impossible to get an exact idea

of the facility with which one can die without being "in the least suspended." In such cases we must suppose a decided effort of the will, with the purpose of abandoning the body to its own weight; or else the momentary constriction of the cord, when tightly drawn, causes a rapid loss of consciousness, and the body, becoming inert, bears its weight upon the neck. The danger of experimenting upon one's own body is manifest. If the feet are found touching the ground, it is necessary to remember that this may have happened through stretching of the cord. If the cord is found broken and the body lying beneath, the rupture may have been caused by the weight of the body, or by the strain occasioned by its convulsive movements. This depends upon the position of the knot.

2. Position of the head. It is usually bent forward; sometimes erect, sometimes turned a little to one side, very rarely turned directly back.

3. The arms may fall by the sides, or may rest in various attitudes upon neighboring objects, or the hands may be rigidly grasping the noose, or some other thing.

4. The lower limbs assume various positions, as may readily be inferred. They usually have a violet-red tint, deep in proportion to the duration of the hanging.

5. The face during the first moments is pale, almost natural; but it usually soon becomes swollen, and of a violet hue, which increases in depth. This persists for a certain time after resuscitation. If the dead body remains hanging, the color becomes deeper, the eyes are injected and prominent, the tongue very often protrudes, or is locked between the teeth; but the position of the tongue does not depend upon the point of application of the cord.

6. The neck (according to Tardieu) is usually elongated in a remarkable manner. The print of the cord may present various appearances; for the variety of articles used in suicide by hanging is truly extraordinary. In prisons and insane asylums it is impossible, with the utmost care, to prevent the patient from obtaining his instrument. A soft fabric, pressing but a short time on the neck, may leave but slight traces, or none at all. But a furrow is generally present, most frequently above the larynx. The skin of the furrow may be dry, resembling parchment, or of a silvery nacreous aspect; the edges may be swollen from passive congestion, but ecchymoses are rare.

7. The sexual organs do not experience

an orgasm; at the period when emission takes place, sensation is entirely abolished; congestion readily occurs in the erectile organs, through the force of simple gravitation; there is no proper erection, and but very incomplete emission.

8. Internal organs. The muscles of the neck may, though very rarely, be the seat of ecchymosis or sanguineous infiltration. Fracture of the cartilages of the larynx or hyoid body is also very rare, and so is section of the middle and inner coats of the primitive carotid artery. Luxation of the axis or atlas requires great force; it would seem that the knot must be tied under the chin in order to produce this effect. The larynx and trachea generally present a uniform blush on their internal surface; the lungs are usually congested, especially at the base. The gastro-intestinal mucous membrane may sometimes present a degree of redness which might be mistaken for the effect of an irritant poison. The brain is not usually congested, but on the contrary is anemic, inasmuch as the internal jugular veins are not compressed.

Did the Hanging take place during Life?—Important as this question may sometimes be, we nevertheless possess no one absolute and invariable sign which would enable us to answer it in the affirmative. Orfila hung, during twenty-four hours, the corpses of twelve persons who had died of various diseases, and no change was noticed in the appearance of the face; the pallor of death was not replaced by lividity. Orfila's experiment, however, was not made on persons just dead; if it had been, the effect upon the face would doubtless have been manifest. And, on the other hand, even if the suspension takes place during life, the face may be pale if the body has hung but a short time. All the marks left upon the neck may be produced upon the dead body as well as upon the living. Extravasations of coagulated blood are doubtless a vital phenomenon, but they are of rare occurrence. When they bear a certain relation to the position of the cord, they are of incontestable value as proof that hanging took place during life. Section of the coats of the carotid is exceedingly rare; and, moreover, it may be produced experimentally, after death, as may the luxation and fracture of the vertebrae. Infiltration of coagulated blood is a decisive sign that fracture took place during life. Orfila and Donné have shown the presence of spermatic fluid in the urethra of men dead of various diseases, and who were not hanged; in fact, it is present very frequently after

natural and constantly after violent death. Evacuation of urine or faeces was noted only twice in the forty-one cases of suicide at the "prison Cellulaire." The presence of bloody foam in the air-passages, the rupture of superficial pulmonary vesicles, and the engorgement of both lungs, particularly at their bases, would have a real value as signs of hanging, if they were more constant; and, joined to the absence of the sub-pleural ecchymoses, and the extended tracts of emphysema characteristic of other modes of death, the pulmonary lesions may be considered of great importance in proving that the hanging took place during life. The nervous centres present no important evidence bearing upon this point.—*Journal of Psychological Medicine*, from *Annales d'Hygiène Publique*.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE MIDDLE-SEX EAST DISTRICT MEDICAL SOCIETY.

SAMUEL W. ABBOTT, M.D., SEC.

STATED meeting, July 13th, 1870, at Dr. E. Cutter's, in Woburn. Dr. Chapin presiding.

Dr. W. S. Brown, of Stoneham, presented a large fatty tumor, removed by wire eraser from the shoulder of a female patient.

Dr. Harlow related the following case. A lady, aged 76, ceased menstruating at 46. She had been the mother of four children, and had usually enjoyed good health. For several years following, she had no vaginal discharge. About five years since, she had some uterine hemorrhage, which increased, and was attended with pain in micturition.

By speculum examination, the os uteri appeared rather light colored and harder to the touch than usual. At a later period strange sensations were felt in the rectum, and pricking pain in the act of defecation. Another examination showed that a large calculous concretion had formed over the os uteri, shaped like a portion of an egg-shell. This was broken up and removed in fragments, which were shown to the Society. They resembled fetal skull-bones; but when examined by the microscope appeared to contain no bony tissue, but were composed of carbonate of lime.

Their removal was followed by the appearance of a large cauliflower excrescence, filling up the vagina.

Dr. A. H. Cowdrey read a case of placenta praevia, occurring in a primipara aged 19, an anemic young woman, who had scarcely passed a week of pregnancy without hemorrhage. The placenta could be felt over the os, and the head presented. Perfect rest was directed, and cool acidulated drinks were ordered. Two days after, natural labor began. Ergot was administered, the placenta separated, and a still-born child delivered. The patient had a good recovery.

Dr. Cutter related a similar case, in which the patient, an Irishwoman aged 22, had the following complications to contend with. She was of a decided tubercular diathesis. When called to see her, Dr. C. found her the mother of a young babe only eight months old, and at the same time seven months advanced in pregnancy with another. She was suffering with severe hemorrhage. A shoulder presentation and prolapsed funis. Etherized, turned and delivered. The mother did well, but the child died.

Dr. C. spoke of the advantage of the position of the patient on the hands and knees in such cases, not only on account of the advantage gained by gravitation in facilitating turning, but also from the adaptation of the back of the hand to the hollow of the sacrum.

Other cases of placenta praevia were related by different members.

Dr. Cutter exhibited a number of biliary calculi, and illustrated their solubility in chloroform, at the same time suggesting its internal exhibition in cases where they were suspected.

He also exhibited specimens of hydrate of chloral, iodoform and its compounds, with remarks in regard to their use.

Dr. Albert Day, of Greenwood, being called upon, related his experience in the use of chloral in mania a potu. In most cases it was successful, though in a few it was not, and in such cases a single trial only was needed to prove the fact. He thinks it has a direct action on the heart, and that the excessive doses named by some foreign writers are hazardous.

After considerable discussion, on the subject of prices, a uniform fee-table was adopted for the District, and the Society adjourned.

We are informed of the death of another distinguished man, well known in medical literature, Dr. James Copland, of London, Eng.

Bibliographical Notices.

Mémoire sur quelques Phénomènes qui se produisent l'Inflammation aigue de la Membrane du Tympan et souvent même par la simple pression de cette Membrane. Par M. BONNAFOND. (Extrait de l'Union Médicale (3me série) du 18 Sept., 1869.

Memoir upon certain Sympathetic Nervous Phenomena which occur during Acute Inflammation of the Membrana Tympani, and often from simple pressure upon the Membrane.

In this paper, read before the Academy of Sciences, August 23d, 1869, the author draws attention to certain facts, the knowledge of which is of importance to the general practitioner as well as to the specialist. The four cases cited show that a long train of nervous symptoms which might easily be referred to some obscure disease of the brain or its meninges, was plainly traceable to a simple local affection implicating the membrana tympani.

In the first of these cases, the patient was suddenly attacked with severe pain in both ears, together with headache, vertigo, nausea, vomiting and fever. An active antiphlogistic treatment, local bleeding and repeated purgation allayed the general symptoms, but the pain ceased only upon the occurrence of a copious sero-sanguinous discharge, which finally diminished under treatment, leaving the patient with a decided diminution of hearing.

Some months later, following exposure there was a second attack, with the same symptoms as before. Recovered as before, under the same treatment, but with a still further diminution of hearing. Following this, there was a third attack, during which the patient consulted M. Bonnafont, who found, upon examination with the speculum, the membrana tympani represented by a red, swollen and somewhat sanguineous surface, the meatus being free from inflammation. Leeches gave little relief, but scarification of the membrana tympani resulted in almost immediate cessation of the vomiting and vertigo, and the patient was able to sleep. Slight cauterization with arg. nitr. was subsequently employed, and the patient recovered perfectly and permanently.

In the second case the principal symptom was vertigo, the attacks recurring at irregular intervals, and so severe that the patient would fall if not immediately supported.

After submitting some time to treatment for a supposed disease of the brain he came under the care of M. Bonnafont, who discovered the cause of the distressing symptoms in the presence of a large polyp in each ear, filling the meatus almost completely and pressing upon the membrana tympani. Pressure upon these tumors with a probe increased the vertigo.

On the right side there was an abscess of the mastoid process, which communicated by a fistulous opening with the meatus. The polyp of the left ear was extracted by ligature and the base cauterized.

On the right side, owing to the firmness of the growth and its numerous attachments to the walls of the meatus, it was necessary to extirpate it by repeated cauterization with the solid nitrate of silver. At the end of two months the cure was nearly complete and the head symptoms had entirely disappeared. The two remaining cases are cited to show that like symptoms, though of lesser intensity, present themselves as the result of simple pressure upon the membrana tympani, whether from without or within the tympanum, the membrana tympani itself remaining intact.

In the first of these, nausea, slight vertigo and buzzing noises in the ears were caused by the pressure of a foreign body, an agglomeration of pellicles which an abnormal secretion had massed together, at the inner end of the meatus and resting upon the membrana tympani.

Syringing extracted the foreign bodies and relieved the patient from nausea, vertigo and subjective noises.

In the second, the same symptoms appeared, and an examination with the speculum showed the membrana tympani of both ears covered with a thick greyish coating, which at first seemed to be a part of the membrane itself, but a further examination with the probe determined it to be made up of foreign matter, closely adherent and hard to the touch. The removal of this coating effectually did away with the subjective symptoms.

In conclusion, the author gives the results of his observations somewhat as follows:—

“ 1. Acute inflammation of the membrana tympani provokes nervous phenomena which simulate meningitis and would easily mislead an inexperienced practitioner.

“ 2. With regard to the symptoms, some, such as pain, elevation of temperature and subjective noises, are characteristic, together with a greater or less degree of deafness, but in addition to these there are numberless others which vary with the individual,

such as violent headache and vertigo, accompanied sometimes by slight titubation; the noises in the ear vary in intensity and resemble the sound of bells, music of an orchestra, &c.

"3. The sero-sanguinolent discharge from the ears following a blow upon the head may often result simply from rupture of the membrana tympani without other injury, and does not always imply a fracture, as has been generally supposed when a fall has been followed by a sero-sanguinolent discharge from the meatus.

"4. Pressure upon the membrana tympani, whether from within outward, or from without inward, always causes vertigo, the intensity of which varies according to the idiosyncrasy of the patient. In some cases a drop of water merely placed upon the membrane is sufficient to provoke it.

"5. When in consequence of a pathological condition of the membrane, it is necessary to operate upon it with a cutting instrument, the pain which results reacts sympathetically upon the lachrymal gland of that side, causing an abundant flow of tears; if the same parts of the membrane are touched with a crayon of nitrate of silver, however, the patient feels a slight prickling on the corresponding side of the tongue, accompanied by a metallic taste.

"6. All traumatic lesions of the membrana tympani, whether accidental or made intentionally with an instrument, heal spontaneously and very rapidly, and, do what one will, it is impossible to prevent cicatrization."

The author goes on to speak of the attempts made by the introduction of mandrils and canulae to maintain a permanent opening, and of the failure of all methods hitherto employed, and concludes in these words: "The practitioner who discovers the means of maintaining this perforation made under the conditions which I have indicated (deafness resulting from thickening, or impairment of the functional action of the membrana tympani), will render the greatest service to humanity. As for myself it is the philosopher's stone for which I have sought ever since I have occupied myself with diseases of the ear, and I shall be the first to applaud such a discovery from whomsoever it may come."

Of the conclusions which the author draws from his observations, some are of particular interest, and would merit a more extensive consideration than has been given them. The fact that the symptoms of myringitis sometimes so closely resemble those of meningitis, is perhaps too often overlook-

ed in cases where there is suspicion of the approach or existence of the latter affection. In cases of the exanthemata in children this may readily happen.

Among the sequelae of scarlet fever myringitis and otitis media, either uncomplicated or connected with an affection of the throat, are by no means uncommon, and in a large percentage of cases of non-congenital deaf-mutism the loss of hearing may be traced to an affection of the ear following some one of the exanthemata diseases of childhood, in very many of which the disastrous result might have been prevented by care and timely treatment.

Furthermore, the disease, implicating at first only the membrana tympani and middle ear, readily extends itself, and we have in consequence of the spread of an inflammation which might have been controlled a far more serious affection.

A more thorough study pathologically of the causes of meningitis and encephalitis in young children, in connection with auricular disease, will probably show that the number of cases resulting primarily from an affection of the ear is much greater than is generally supposed.

Von Trötsch, in speaking of infantile aural catarrh, says: "I may recall to your recollection that process of dura mater, so rich in vessels which in childhood extends along the whole of the fissura petro-squamosa, to the cavity of the tympanum and the mastoid cells, and through which the dura mater and the mucous membrane of the middle ear come into closer relations in respect to nutrition than is the case with adults. Each of the disturbances of nutrition and circulation in the membranes of the brain, such as are quite common to children, must extend to the middle ear, from the fact that the blood supply of both is conveyed in the same channel; and the reverse is also true—every primary affection of the ear in child is apt to produce symptoms of cerebral disturbance. I must not omit to state that in all the cases of infantile external otitis, where I was allowed to make a complete examination, I found also congestion and hyperemia of the brain."

The last clause of M. Bonnafont's memoir, the conclusion of which is above quoted, makes no mention of cases where the attempt at maintaining a perforation of the membrana tympani has been successful.

The number of cases of deafness where a permanent artificial perforation would not only greatly improve the hearing, but would also rid the patient of the accompanying subjective noises, is very large. The atten-

tion of surgeons has long been directed to the attainment of this much desired end, and the latest method employed is that of Dr. Politzer, who substituted for the metallic canula of Bonnafont a very light hard rubber eyelet. The first case in which it was introduced, and of which an account was published in this Journal (March 25, 1869), was decidedly a success, but we have no further reports of cases from the same source.

In that case, moreover, the eyelet was inserted in a cicatrix and not in a perfect membrana tympani, so that it affords no absolute certainty of like success in the class of affections which most demand such an operation, namely, where the membrana tympani is thickened, has lost its resiliency or is adherent to the wall of the tympanic cavity.

That efforts in this direction will be ultimately successful there can be but little doubt, yet there seems to be better promise of such a result in carefully following out the pathological study of those perforations of the membrana tympani, resulting from inflammation of the middle ear, which often so obstinately resist all attempts at inducing cicatrization, than in resorting merely to mechanical means.

C. J. B.

Medical and Surgical Journal.

BOSTON: THURSDAY, AUGUST 4, 1870.

DECLARATION OF WAR.

No friend of humanity can look without feelings of interest, mingled with sincere regret, at the threatened war which has been forced on the nations of Europe, apparently by the Emperor of the French; the successor on the throne, as he is the evident heir of those traits of character of the first Napoleon which made him, in the words of the Allied Powers, in 1815, "the enemy and disturber of the world." Nor can we fail to sympathize with the words of the King of Prussia, in his address made at the opening of the North German Parliament, when he charges the Emperor with seeking a pretext for war in a manner unheard of in the annals of diplomatic intercourse, and with declaring war with that disregard for the people's rights to the blessings of peace of which the first Napoleon

gave such analogous examples. Truly, "the responsibility falls on one man, who has dragged two great peoples into a devastating war for the furtherance of his own personal interests; two great and tranquil nations, yearning for peace and the enjoyment of the common blessings of Christian civilization and prosperity, and for contests more salutary than those of blood."

In this state of affairs, it must be a matter of professional as well as national pride to note that one of our own countrymen, Dr. Evans, of Paris, has called a meeting of the citizens of the United States at his residence for the purpose of organizing a sanitary commission for the relief of the sick and wounded in the contest which seems imminent. It is proposed that the commission shall cooperate with the International and French Societies in aid of the wounded. Dr. Evans has placed at the disposal of the new organization a report of the Sanitary Commission of our own country in the late war, and a collection of models of ambulances, stretchers, hospital tents and other appliances used in our own armies. A donation of 10,000 francs was also made by Dr. Evans as the nucleus of a sanitary fund.

The name of Dr. Evans is not new in sanitary science. While in Paris in 1867, as a member of the Commission from the Massachusetts Medical Society to the International Medical Congress, and with authority to visit and report on the medical and surgical portion of the Exposition of that year, we had the pleasure of examining carefully the superb collection of the U. S. Sanitary Commission, gathered mostly by the energy and liberality of Dr. Evans. The reports of the various members of the Commission, some of them containing valuable information and suggestions, were read at small meetings of the Society, and—still remain unpublished. We venture to give a short extract from the report of one of the Commission, which will furnish some idea of the material now placed at the disposal of the nations of Europe by our fellow-countryman.

"In speaking of military surgery, your committee cannot refrain from noticing the

fine collection, brought together under the auspices of the societies of Europe for the relief of the sick and wounded in service, and, especially, that contributed by an agent of our own late Sanitary Commission. Military surgery has never been represented on a scale so grand as in the present Exposition. Such was the readiness shown to respond to the invitation of the French Committee, that the entire space allotted to this Exposition in the Park is filled to repletion with every means employed by enlightened governments in all parts of Europe and our own country for the relief and sustenance, the medical and surgical treatment and transportation of the sick and wounded of armies.

"The subject of combined international action in reference to the care of the sick and wounded soldier was agitated in Europe in 1863, and in October of that year a convention of delegates from most of the nations of Europe was held at Geneva for the discussion of the subject. The following year a second convention was held, at which an agreement was ratified by representatives of fifteen European governments, by which persons engaged in the care of the sick and wounded of armies in the field, and the articles employed for such care, were declared neutral. Following this decision, societies were formed in the various European countries to carry out its philanthropic intention, and, on the invitation of the Central Committee of the French Exposition, the societies and committees of the various countries have organized an exposition of the articles employed by the armies of their respective nations.

"The collection of the Sanitary Commission of the United States is located in a separate building. It represents, in an admirable manner, all the efforts put forth by the Sanitary and Christian Commissions, by the Medical Staff of the Army and by the women of America in the late rebellion. It is, in this department, *far* ahead of the offering of any other country, and, as a memorial of the tender regard in which the Northern people held their soldiers in the field, is indeed an honor to us.

"As no organization now exists representing the bodies contributing to this collection, we are largely indebted for its existence to our countrymen, Dr. Thomas W. Evans, of Paris, and Dr. E. A. Crane, formerly engaged in the Sanitary Commission, both of these gentlemen being desirous that the means and apparatus, which had so successfully relieved much of the suffering of our soldiers, might be placed before

the world, to be copied and employed in case of subsequent European or other wars. Not only has Dr. Evans made this contribution to sanitary science—he has written and published in good style and distributed at his own expense several volumes on the subject in question, and has issued a translation in French of many of the essays published under the auspices of the Sanitary Commission during the war and issued to medical officers.

"It is a satisfaction to know that the sanitary collection of America has received the *Grand Prix* of the Exposition, and that it excited the utmost interest, not only in military and professional circles, but in the visiting public generally.

"In the collection of the United States, the subject of transportation is illustrated by a large and beautiful model of a hospital car, complete in all its parts, by ambulances, models and drawings of hospital transports, horse litters and stretchers. The ambulances of supply are represented by army medicine wagons, ambulance kitchens, coffee wagons, medicine panniers and knapsacks. Hospitals are represented by models and drawings of those employed in our service, hospital tents, furniture, &c. In the matter of surgical instruments, there are shown samples of all the cases issued by the Medical Department to its officers in the field, with surgical appliances in the way of splints, fracture beds and artificial limbs. As sanitary supplies, there are displayed samples of all those articles of clothing, bedding, &c., which were supplied by the Sanitary and Christian Commissions and by the women of America all through the war, and by those many miscellaneous articles which were so freely supplied to the hospital and the field to relieve the suffering, to supply the comfort and even to gratify the taste of the soldier and remind him of home. The Exposition also contains a great number of works, both large and small, which have been written in connection with our Commission during the war."

We publish to-day a selected article from that portion of the *Journal of Psychological Medicine* known as the "Chronicle." It contains a series of well-selected abstracts and reviews, and is, in fact, an excellent résumé of the German psychological literature of the day and the advanced views of that school. The Chronicle for the present quarter has been collated and translat-

ed by Dr. D. F. Lincoln, of Boston. We regret that the accidental omission of his name in connection with this portion of the *Psychological Journal* deprives him of the credit which is due him.

In our selected paper of this week are the details of a case originally reported by Drs. Clark, Ellis and Shaw, where irritability of the auricle after death was marked. In connection with this case, the report of an observation which I made in May, 1868, while an *interne* at the Massachusetts General Hospital, may be of interest. A man, middle aged, and a slater by trade, fell from the roof of a building sixty feet in height, striking on his head and back, causing a fracture of the skull. He was taken up insensible and carried to the hospital, where he lived for half an hour. In one hour after he died, I made the autopsy. The liver, spleen and both kidneys were found fractured, and the abdominal cavity nearly filled with fluid blood. On opening the pericardium and raising the heart, the auricular appendage of the right auricle was seen to erect itself and then collapse. On being touched by the finger a repetition of the phenomenon occurred. The irritability gradually decreased until two hours and a half had elapsed from the time the autopsy was commenced, when the application of stimulus failed to cause it.

H. H. A. B.

THE New York *Medical Record* comments as follows on the resolution passed at the recent annual meeting of the Massachusetts Medical Society:—

"As we understand the case, the statutes provide for the admission of irregulars into this body. If we are right, such a resolution does no more than record the expression of an opinion. We sincerely hope that the contrary will prove to be the case, and some practical good may come of it."

TREATMENT OF OTITIS MEDIA PURULENTA.—Dr. Millingen says that this is one of the most painful and obstinate diseases of the ear, and is alike uncertain in prognosis and difficult to cure. The object to be attained is the healing of the diseased mucous membrane. Forcing air into the tym-

panum through a catheter is by no means sufficient to remove a mass of thick secretion accumulated in and adherent to the sides of the tympanic cavity. Syringing the external meatus does very little good, as only the pus lying in the external meatus is removed; or if there be a perforation in the tympanic membrane, only a small quantity of that which is contained in the tympanic cavity. The Eustachian tube, generally the starting point of the disease, is also affected. If the mouth of the tube be examined, it will be found to be, in most cases, inflamed, if not ulcerated, and it is to be inferred that the whole mucous membrane of the ear, beginning from the membrana tympani to the mouth of the Eustachian tube, is covered with purulent secretion. The idea suggested itself to Dr. Millingen to try a new mode of treatment which has been adopted in the clinique of Dr. Politzer, of Vienna, with the most favorable results. It consists in catheterizing the patient, and after having insured the passage of air into the tympanic cavity, by means of the otoscope, to syringe tepid water several times successively through the tube into the cavity with sufficient force to bring out all the pus that may be there contained; the second step is to blow in air again, in order to drive away any water which may have remained in the tympanum; and, lastly, whenever the case requires it, to blow in through the same cavity a few drops of some astringent solution. —*Medical Times and Gazette.*

NEW METHOD OF TREATING CONFLUENT SMALLPOX.—*L'Abeille Médicale* says:—"M. Chauffard has recently made the following communication to the Société Médicale des Hôpitaux:—'The treatment of which I have to speak consists in the employment of large doses of crystallized phenic (carabolic) acid, a therapeutical agent whose efficacy in the secondary fever of severe confluent smallpox—a secondary period when, as is well known, the majority of patients attacked by severe confluent smallpox succumb—appears to me established.

"To judge the more clearly of the efficacy of this remedy,' says M. Chauffard, 'I have used it exclusively in five cases of absolute severity, and, to my great surprise, in all these cases I have observed the rapid disappearance of the intense febrile phenomena, and of the symptoms of suppuration. One only of these five cases died, but at the time of his death he had been convalescent a fortnight.'

"The dose of the medicine adopted was one gramme (15 4 grs.) of crystallized carbolic acid in a mixture of four or five ounces, to be taken in the course of the day. The treatment is completed by the application of carbolic acid lotions externally."

Our readers will remember that our Lyons correspondent, in his recent letter, adverted to this treatment.—*Dublin Medical Press and Circular.*

RATE OF DEATH FROM CHLOROFORM.—From a lecture on Death from Chloroform, by Benj. W. Richardson, M.D., F.R.S., published in the London *Medical Times and Gazette*, we take the following:—

In the commencement of our inquiries it is well to consider what is the actual proportion or rate of death from the administration of chloroform. To arrive at correct results on this subject is a difficult task, for many deaths have not been recorded, and there is a natural diffidence on the part of individuals and of the managements of public hospitals to speak of fatal cases. When a practitioner has administered chloroform a very large number of times without having met with a fatal case, he is often led to underestimate the danger, and to ascribe his success to some particular mode of administration. I am satisfied this is not reliable experience. I can myself say that I was never present when a human being died from the administration of any anæsthetic, and I have been engaged in the study and practice of general anesthesia ever since the introduction of the practice. But the favorable evidence I should give on my experience would be worse than worthless, for at least three times in my life some accident has prevented me from being present at cases which have ended fatally, and which would have ended in the same way had I been the administrator. But recently I was conversing with a surgical friend on this subject, who was not himself an administrator of chloroform, and who told me that he had been present at not less than six fatal administrations. Now his experience had not been so large as mine, yet had it been six times as large it would have been six times more unfavorable. I have here reports, very brief in each case, but most important, of over four thousand administrations of chloroform by the late Dr. Snow, all drawn up by his own hand; the whole record is free of a fatal case; there are some close escapes of death,

but no obvious direct death from the narcotic agent. This again is a remarkable experience, but if I were to compare it with the experience of two other equally careful administrators who have followed faithfully the method and practice of Snow, theirs would differ full half as much as that of mine and of my surgical friend of whom I have spoken.

Here before us are a still more valuable series of facts. When I was engaged in writing the Medical History of England for the *Medical Times and Gazette*, in the years 1864 and 1865, I visited in turn eight hospitals—viz., Norwich, Lynn, Stafford, Wolverhampton, Newcastle-under-Lyne, Brighton, Birmingham General Hospital, and Birmingham Queen's Hospital. From the books of these institutions I collected, personally, the number of administrations of chloroform in each institution from the first, in 1848, and before I arrived at a death I recorded no less than seventeen thousand administrations. Now, one death in 17,000 cases reduces the mortality to a nominal value, and if this experience were supported by all experiences we need trouble ourselves little for any better agent than chloroform. But mark the result of the five years' subsequent experience in the very same institutions. Since 1864 there have been in these hospitals 7500 administrations with 6 deaths, or 1 death in every 1250 cases. After I had visited the hospitals above named in 1864, I visited in the same and the following year six other hospitals—viz., at Lincoln, Bath, Oxford, Cambridge, Reading and Nottingham. In these I collected the facts of 7900 administrations from the year 1848, with a result of three deaths, or 1 in 2633 cases. In these same hospitals in the subsequent five years there have been 2762 administrations with a result of 1 death.

If, finally, in relation to these large hospital statistics we put all the facts together, we find that in the twenty-one years from 1848 to 1869 inclusive, in the thirteen hospitals named, there were 35,162 administrations of chloroform, with a proportion of 11 deaths. I believe this to be the largest reliable series of cases of administration as yet collected, and I know it to be just. Doubtless cases of death from the agent there are none, and in every case a qualified and competent practitioner was the administrator.

If from individual and general hospital experiences we pass to the experiences of particular hospitals, we find, again, the widest differences of results from chloroform ad-

ministration. Some hospitals, like some individuals, are fortunate, some unfortunate. There are before me the statistics of two hospitals so alike we might call them twins: they have the same average of patients, the same average number of administrations a year, the same precise length of experience. In one of these in twenty-one years there have been 1575 administrations without a death; in the other the mortality has been 1 death in 525 cases. I could multiply these illustrations were the labor necessary. It is not necessary. My preliminary purpose is fulfilled if I have proved that, in face of the facts of frequent runs of so-called good luck by particular men, or in groups of hospitals, or in particular hospitals, there is, under the most favorable aspect of chloroform, a given mortality which up to this moment seems to be a necessary mortality, just as there is a mortality from accidents and acute diseases like fevers. The mortality is, moreover, considerably greater than is known, for cases occur constantly which are not recorded. I compute favorably from the facts given above that the rate of mortality is as 1 in 3500 administrations of chloroform (I really think it is greater, and that 1 death in 2000 to 3500 administrations would be nearer the truth); but even at this rate we have no other remedial agent which approaches chloroform in point of danger.

MEDICAL EDUCATION—PROFESSOR HUXLEY ON THE STUDY OF GEOLOGY.—Professor Huxley distributed the prizes the other day, at the University College, to the medical students. The reports of the professors having been duly read, he delivered an address to the audience. Success, he said, upon an occasion of this kind, valuable as it was, in reality was but putting the foot upon one round of the ladder which led upward, and that never was intended to be rested upon longer than was necessary to assist in moving to the next rung. He did not forget the vanquished, however, and he hoped, though borne bleeding from the field, they had been cured by the ministrations of some fair maiden—(laughter)—and in these days when every fair maiden was to be a fully qualified practitioner—(hisses, cheers and loud hisses, which drowned the remainder of the sentence.) The quarter of a century which had elapsed since he occupied a position similar to theirs took him back to a time when he himself was exceedingly well beaten in anatomy and physiology by a member of University College, and he ac-

cepted the defeat with the comfortable assurance that he had thoroughly earned it. (Laughter.) After all, it did not matter how many tumbles a man had in his career, so long as they did not make him dirty. (Cheers.) Persons who had to wash and be clean after every such experiment must of necessity lose much time and opportunity. Patience and tenacity of purpose were worth more than twice their weight in cleverness. Speaking of medical education, he said he had, for twelve or thirteen years, been an examiner in the University of London. Although the men who came up there were the pick of the London schools, he had found them all laboring under certain disadvantages, owing to the defective system of education now pursued. What struck him during his long experience of the best instructed of the medical schools was the singular unreality of their knowledge of physiology. He did not complain of the quantity, for there was, if any thing, too much of it, but he did quarrel with the quality. He had invariably found that the men who came up for examination did not know their physiology as they did their anatomy. While anatomy was properly taught as a science, physiology was taught as if it were a mere matter of books and hearsay. This was not a desirable state of things, and his earnest conviction on the point had led him to the somewhat bold course of publicly expressing his opinion. (Cheers.) The saying that every question in the world was a question of finance, really was, to a great extent, true with regard to a medical education. The number of schools in London rendered it almost impossible that competent men could confine themselves to the teaching of the theoretical branches of the profession. Anatomy, which lay in the direction of practice, might be thoroughly taught, but this was not so with physiology. From the very nature of the case, the occupant of the physiological chair remained there until he had achieved professional success, and then he left it; he was clothed, but physiology was bare. (Cheers.) The remedy he suggested was the centralization of the teaching of the theoretical branches of the profession in not more than three central institutions, where able professors could be maintained. He would cut down these theoretical branches to a considerable extent, and would have the elements of physical science taught in the primary schools—physics, chemistry, botany, and the like. (Hear, hear.) Comparative anatomy ought to be absolutely abolished, although it would involve the putting back

of such branches as zoölogy and botany to the students' early education in ordinary schools. He would also abolish *Materia Medica*. (Cheers.) He could not understand why gentlemen who had to practise medicine should be obliged to learn all about drugs, and where they came from ; they might just as well be required to learn all about cutlery because they used knives. (Laughter and cheers.) If his views were adopted, there would be left for the four years' study the following nine subjects : Physics applied to physiology, chemistry applied to physiology, physiology, anatomy, surgery, medicine, obstetrics, hygiene, and medical jurisprudence, which would be quite enough for the man's pursuit—(cheers)—and this course would not oblige a medical student to occupy his time with what would not be absolutely useful in his future life. (Cheers.)

A hearty vote of thanks on the motion of Mr. Groth was passed to the learned professor at the close of his address.—*London Daily News.*

LIEBIG ON THE SOURCE OF MUSCULAR FORCE.—There are at present two theories of the source of muscular force : (1) that it arises from decomposition of the nitrogenous substance of the muscle, in which decomposition oxygen plays a part—though not an essential part ; (2) that it is due to the combustion of non-nitrogenous material.

The former theory is that maintained by Liebig, the latter is denied by Liebig, who urges objections to it in the third section of his recent memoir.

This theory was propounded by Fick and Wislicenus a few years ago, and developed by Frankland, whose statement of the *modus operandi* during the muscular action is as follows :—

Both the oxygen and the combustible nutritive material are contained in the blood which circulates through the muscle. So long as the muscle is at rest they do not act chemically upon one another, but so soon as the brain sends an impulse to the muscle through the nerves, so soon oxidation begins. In this oxidation potential force becomes actual force, part of which takes the form of mechanical motion, and part the form of heat. Such is the source of the muscular power and of the heat which accompanies muscular exertion. The muscle itself is somewhat analogous to the piston and cylinder of a steam-engine, and the urea formed during muscular action is to be looked upon in the light of material which has degenerated by friction, being

the index to the mere wear and tear of the instrument.

This view owed its origin to the now well known ascent of the Faulhorn by Fick and Wislicenus, which was performed on a strictly non-nitrogenous diet, and during which the excretion of urea was determined, and found not to be increased above the average.

Fick and Wislicenus argued that inasmuch as they took no nitrogenous food, and excreted no more nitrogen than usual in the form of urea, and yet performed an excessive amount of muscular work, it is impossible that muscular forces can be the result of decomposition of muscle into urea and other products, and that therefore muscular forces must have another source, and that source they declared to be the oxidation of non-nitrogenous matter which they received into their bodies in the shape of the non-nitrogenous diet indulged in during the memorable Alpine journey.

Liebig points out that they omitted to determine the quantity of nitrogen passed in the feces, and that they did not weigh themselves before and after the journey.

If the animal economy were like a gun instead of being like a watch, reasoning such as the above might be valid. Quoting some experiments by Dr. Parkes, he shows that the increase in the excretion of urea is to be observed a few days after violent muscular exercise. He further points out that the production of urea in the body is not exclusively due to muscular action, and cannot therefore be looked upon as the measure of muscular decomposition. Liebig's own account of muscular action is that during it the products of metamorphosis accumulate in the structure of the muscle, and that this accumulation occasions the well-known sense of muscular fatigue. After the muscular exertion is over there is gradual cleansing of the muscular structure, and with this cleansing the sense of fatigue goes away also. Against the theory that oxidation of non-nitrogenous material in the circulating fluid is the cause of muscular action, he adduces the fact that isolated pieces of muscular structure which have been washed with a weak saline solution exhibit muscular action when properly stimulated.—*Medical Times and Gazette.*

CASE OF FETAL MONSTROSITY—LABOR RETARDED THEREBY. By GEO. WHITFIELD, M.D., Marengo Co., Alabama.—A very robust white woman, wt. 19, seven months pregnant, was threatened with abortion July

27th, 1868. Pains severe and recurring every fifteen minutes; *os tincu* dilated sufficiently to admit point of index finger; no *show*; uterine tumor indicating progress to full term, fundus above umbilicus, although woman, husband and friends asserted positively that she was but seven months gone. R Morphine sulph. gr. one-sixth hypodermically; but one more slight pain a few minutes after.

Twenty-four hours later, on July 28th, pains returned; same prescription, same result.

Twenty-four hours later, on July 29th, pains returned. Upon my arrival, was informed by my friend, Dr. M. Matkin, who had been called in my absence, that it was too late to prevent the miscarriage, as the bag of waters was broken and the head well engaged in the *os*. Nothing worthy of note occurred in the progress of the labor until after the head was born, when it required *four strong pains* to expel the body. After the fetus was entirely expelled, it was still attached by the buttocks to the mother in some way or other not yet explicable. While manipulating in wonder to ascertain the difficulty, another powerful uterine effort expelled what at first sight appeared to be another head attached to the lower end of the spine. The "double-headed fetus," as we at first took it to be, breathed about ten minutes and died.

Upon closer inspection, the supposed supernumerary head proved to be a tumor, just about the size, shape and color of the real head, of a soft, obscurely fluctuating feel, covered with natural skin of rather coarse texture, having on its dorsal surface a large superficial vein with arborescent arrangement running upwards and losing itself on the back. Its pedicle very short, about one and a half inches in diameter, attached to the buttocks and exactly opposite the extremity of the coccyx. On the anterior aspect of the pedicle were the well developed penis and testes, and one inch below these the anus pervious in the normal direction to a six inch probe its entire length.

Finding it was not a head, we now supposed it to be an enormous tumor, of the nature of *spina bifida*; but no persuasion would induce the parents to part from the fetus, or even the tumor, consenting, however, to its dissection.

Dissection.—The mass was quite vascular, bleeding freely wherever cut, having the appearance of muscular fibre, running in all directions and enclosing five or six cysts, varying in size from that of a pigeon's egg

to a small buck-shot, and filled with straw-colored fluid. Within the anterior part, just below the anus, were a few transverse streaks of soft bone. The mass had no connection with the spinal canal. We could find no satisfactory cause for the miscarriage, as the woman was in perfect health and had been subjected to no disturbing causes, but supposed that the uterus *might* have cast off its burden, because it had arrived at the nine months in size and weight if not in age, recollecting, however, that we had seen the uterus submit without resistance to much greater distention and weight in cases of plural births.

We now easily understand why *four strong* pains were necessary to expel the body after the head was extruded. Between the fundus uteri and the fetus a soft cushion (the tumor) intervened.—*New Orleans Journal of Medicine*.

ABNORMAL CONDITION OF THE UMBILICAL CORD, DIMINUTION IN THE SIZE OF THE VESSELS, AND DEFECTIVE NUTRITION OF THE CHILD. By A. ED. WILLIAMS, M.D., of Springboro, Crawford County, Pa.—Mrs. W., aged 21, primipara, had suffered during some months of gestation, with intermittent fever, attended with occasional attacks of the most distressing cephalalgie. The disease seemed unusually obstinate, notwithstanding the free and continued use of quinia. A chill occurred only a week prior to labor, which took place June 10th, and this was probably a few weeks before full time.

The head presented, and labor was in all respects satisfactory. The child, however, was very small, weak, and shrivelled, and vigorous efforts were necessary to establish respiration. The cord was double the ordinary size, very white and translucent, and of almost cartilaginous hardness, so much so that it was found necessary to dress it in the erect position. No fluid whatever exuded from the cut extremities, and the vessels were scarcely to be seen at all, so diminutive was their size. The placenta was apparently quite normal. The child was with difficulty kept breathing, and lived but twenty hours.—*The Medical News and Library*.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.—The meeting of the Association for 1870, will be held at Troy, N. Y., beginning on Wednesday, August 17th, having been postponed by the Standing Committee from the 3d, at the request of the Local Committee.

Medical Miscellany.

EPISPADIAS IN THE FEMALE.—At the meeting of the Medical Society of Vienna, May 6th, 1870, Dr. Funk showed the drawing of a case of this kind. The clitoris was absent, and in its place was a groove opening into the urethra, the latter easily admitting the little finger. On either side of this groove were the halves of the fissured clitoris. This girl, seventeen years old, menstruates regularly, but cannot hold her urine long, the latter escaping when she is dancing. This is the simplest kind of abdominal non-union in the mesial line, and presents an arrest of development at a late embryonic stage. It should be remembered that marsupial animals have a double clitoris, and that the same formation exists in cats and dogs, but is only marked by a groove.—*Lancet*, from *Med. Central. Zeit.*

THE BULLET-CURE FOR ILEUS.—The old remedy for colic, of a bullet or quicksilver taken into the stomach, has been revived, in a modified form, by Dr. Maydieu, of Argent, France. In the *Journal de Méd. Pratique*, Dr. M. declares that, after seventeen years of the ordinary treatment, in which he always failed, he has been invariably successful in the twelve cases which he has treated with shot. He mixes No. 6 shot, after careful washing, with olive oil sufficient to cover them, and gives a dessertspoonful every half hour. In five or six hours the vomiting ceases, gases are expelled, and the bowels are moved. Warm baths, fomentations, and injections of milk and honey are always superadded. *Apropos* of this treatment, we take the liberty of telling a little anecdote. Some forty years ago a travelling preacher in England was taken sick with colic, in the house of a good old lady where he was spending the night. The good lady brought a bullet, which after warming, she induced him to swallow. He was soon relieved from pain, and then began to reflect on the course of the bullet, and at last suggested to his nurse a doubt whether a body so heavy could find its way through the intestinal labyrinth, fearing that it would lodge there permanently. "You need not be the least afraid," said the lady cheerfully, "for that very bullet has gone through me at least twenty times!"—*Practical Med. and Surg. Journal*.

SWALLOWING INDIGESTIBLE SUBSTANCES.—Sir William Ferguson calls attention to the case of a sailor, aged 22, who was in Guy's Hospital in 1853, and who, in the course of ten years, swallowed, at different times, at least thirty-five knives. Some of these, or eroded portions, were occasionally vomited or passed per rectum. He finally died from exhaustion, and, on opening his body, forty different pieces of blades and handles were found in the abdomen.—*Druggists' Circular*.

MR. LAWSON TAIT disputes Dr. Nott's claim to priority in extirpating the coccyx for the cure of coccydynia, stating, in a note to the *Lancet*, that Sir James Y. Simpson performed that operation more than eight years ago. The writer adds that so severe an operation can seldom be necessary,

as "there are but few cases of coccydynia which resist the subcutaneous incision."—*N. Y. Medical Gazette*.

DR. HERING, of Vienna, is the successor of the late Prof. Purkinje in the chair of Physiology in the University of Prague. The position was offered first to Prof. Helmholtz, who declined to leave Heidelberg.—*Ibid.*

SIR DOMINIC CORRIGAN recommends, in incontinence of urine in little boys, smearing the cup of the prepuce, slightly retracted, with collodion at bedtime. A fortnight's use of this means is generally effectual.—*Canada Med. Journal*.

A CORRESPONDENT of the *Lancet* writes in praise of hydrate of chloral given, at Dr. Aitken's suggestion, to allay the itchiness attendant on the eruption of scarlatina.—*Ibid.*

NOTICE.—Part LXI of Braithwaite's *Retrospect* was mailed from this office on the 1st inst. to members of the Massachusetts Medical Society who have paid their assessments for the year 1870-71. Members who have paid and do not find the book at their post offices, are requested to forward their vouchers to the Librarian, care of D. Clapp and Son, Medical and Surgical Journal Office, 334 Washington St., Boston.

To CORRESPONDENTS.—Communication accepted.—
Cases of Geophagotomy.

Deaths in seventeen Cities and Towns of Massachusetts for the week ending July 30, 1870.			
Cities and towns.	Number of each place.	Cholera Infusion.	Prevalent Disease.
Boston	233	81	22
Charlestown	28	7	1
Worcester	26	13	2
Lowell	28	8	11
Millford	10	6	1
Chelsea	8	4	2
Cambridge	19	7	3
Salem	17	2	3
Lawrence	16	6	22
Springfield	11	3	2
Uxbridge	13	7	1
Pittsfield	4	0	0
Gloucester	5	0	1
Fitchburg	4	0	1
Taunton	12	3	4
Newburyport	4	1	0
Fall River	30	3	6
	468	149	55

From all the above-named places there are reported twenty-five deaths from dysentery and diarrhoea, seven from scarlet fever, and five from sunstroke.

George Duray, M.D.,
Secretary of State Board of Health.

DEATHS IN BOSTON for the week ending July 30th, 233. Males 106—Females 125.—Acces., 1—accident, 7—apoplexy, 5—disease of the bowels, 1—Inflammation of the bowels, 2—congestion of the brain, 2—disease of the brain, 1—Inflammation of the brain, 5—bronchitis, 2—cancer, 3—canker, 1—cholera infantum, 81—cholera morbus, 1—consumption, 23—convolvulus, 4—debility, 6—diarrhoea, 13—dropsey, 3—dropsey of the brain, 2—dropped, 1—dysentery, 5—scarlet fever, 3—typhoid fever, 4—disease of the heart, 10—homicide, 1—insanity, 1—disease of the kidneys, 3—Inflammation of the lungs, 6—marasmus, 9—measles, 3—old age, 3—paralysis, 3—peritonitis, 2—poisoning (accidental), 1—premature birth, 1—sunstroke, 3—teething, 3—unknown, 8.

Under 5 years of age, 146—between 5 and 20 years, 13—between 20 and 40 years, 33—between 40 and 60 years, 20—above 60 years, 21. Born in the United States, 183—Ireland, 38—other places, 13.